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Reviewed work(s):

Source: *Educational Researcher*, Vol. 15, No. 5 (May, 1986), pp. 5-12

Published by: [American Educational Research Association](#)

Stable URL: <http://www.jstor.org/stable/1174780>

Accessed: 09/07/2012 16:57

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Staff Development and the Process of Teacher Change

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ABSTRACT: This article presents a model that describes the process of teacher change, particularly through staff development programs. The model suggests a temporal sequence of events that is hypothesized to typify the process from staff development to enduring change in teachers' perceptions and attitudes. Research evidence supporting the model is summarized and the conditions under which change might be facilitated are described. Several principles for enhancing the change process to improve staff development efforts are also outlined.

High quality staff development is a central component in nearly every proposal for improving education. Because teachers today remain in their positions for longer periods of time, and fewer new teachers enter the field, improvements in our schools will clearly require enhancement of the professional skills of present staff members.

The proposed staff development programs vary widely in context and format, yet they generally share a common purpose. Specifically, staff development programs are designed to "alter the professional practices, beliefs, and understanding of school persons toward an articulated end" (Griffin, 1983, p. 2). In most cases, that end is the improvement of student learning. In other words, staff development programs are a systematic attempt to bring about change—change in the classroom practices of teachers, change in their beliefs and attitudes, and change in the learning outcomes of students.

This article presents a perspective on the nature of these three

areas of change and the conditions under which they take place. It examines the order of occurrence of these change events and how specific types of change might be facilitated and sustained. A model for viewing change in teachers is proposed in hopes of clarifying aspects of that change process. In addition, the implications of this model for the practice of staff development are considered in light of current research.

Historical Context

Staff development efforts in American schools can be traced to the initiation of the Teacher Institutes in the early 19th century (Richey, 1957). But instead of a history characterized by steady progress based on advances in our knowledge and understanding, the history of staff development is characterized primarily by disorder, conflict, and criticism.

Nearly every major work on the topic of staff development has emphasized the failings of these efforts. For example, Corey (1957) stressed that while there was strong evidence of a growing need for continuing professional development among school persons, it was also apparent that "much of what goes for inservice education is uninspiring and ineffective" (p. 1). Davies (1967) offered an even stron-

ger condemnation in his testimony before the Senate Subcommittee on Education. He concluded, "Inservice education is the slum of American education—disadvantaged, poverty stricken, neglected, psychologically isolated, riddled with exploitation, broken promises, and conflict" (cited in Rubin, 1971, p. 38).

In recent years, advances in research on effective schools and the variables that contribute to instructional effectiveness have increased attention on the need for high quality staff development programs (see, e.g., Bloom, 1976; Brophy, 1979; McDonald & Elias, 1976; Medley, 1977). However, relatively few such programs have been forthcoming. In fact, as recently as 1983, Howey and Vaughan described the current practice of staff development as

... a potentially well-supported (in terms of resources) enterprise that is fragmented, not frequently engaged in on a continuing basis by practitioners, not regarded very highly as it is practiced, and rarely assessed in terms of teacher behavior and student learning outcomes (p. 97).

Other reports by Flanders (1980), Harris, Bessent, and McIntyre (1969), Howey and Joyce (1978), Lawrence (1974), McLaughlin and Marsh (1978), Rubin (1978), Wagstaff and McCullough (1973), and

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Wood and Thompson (1980) have been equally dismal.

Undoubtedly a variety of factors contribute to the ineffectiveness of most staff development efforts. However, it could be hypothesized that the majority of programs fail because they do not take into account two critical factors: what motivates teachers to engage in staff development, and the process by which change in teachers typically takes place.

Although it is true that teachers are usually "required" by certification or contractual agreements to take part in various forms of staff development, most teachers engage in staff development because *they want to become better teachers*. Staff development is generally seen as one of the most promising and most readily available routes to growth on the job (Fullan, 1982). Not only is it a way to combat boredom and alienation, but it also presents a pathway to increased competence and greater professional satisfaction.

The Rand Corporation's Change Agent Study showed clearly that teachers participate in staff development activities primarily because they believe such activities will help them to become better teachers. Extrinsic rewards such as extra pay were found to have no effect on teachers' motivation toward staff development (Berman & McLaughlin, 1978).

How is becoming a better teacher defined? For the vast majority of teachers, becoming a better teacher means enhancing the learning outcomes of their students. McLaughlin and Marsh (1978) report that, "A primary motivation for teachers to take on extra work and other personal costs of attempting change is the belief that they will become better teachers and *their students will benefit*" (p. 75).

Similarly, Harootunian and Yargar (1980) found in their study of teachers' perceptions of success that "regardless of teaching level, most teachers define their success in terms of their pupils' behaviors and activities, rather than in terms of themselves or other criteria" (p. 4). Lortie (1975) found the same to be true in his study of teachers in Five Towns.

Clearly, teachers are attracted to staff development programs because they believe these activities can potentially expand their knowledge and skills, contribute to their growth, and enhance their effectiveness with students. But it is also clear that teachers carry with them to staff development programs a very pragmatic orientation. What they hope to gain through staff development programs are specific, concrete, and practical ideas that directly relate to the day-to-day operation of their classrooms.

Studies have shown that staff development activities undertaken in isolation from teachers' ongoing classroom responsibilities seldom have much impact on teaching practices or student learning (Doyle & Ponder, 1977; Zigarmi, Betz, & Jensen, 1977). Therefore, to be effective, a staff development program must offer teachers practical ideas that can be efficiently used to directly enhance desired learning outcomes in students.

A second important factor that many staff development programs fail to consider is related to the *process of teacher change*. Staff development efforts frequently attempt to first initiate some form of change in the beliefs, attitudes, and perceptions of teachers (Fullan, 1982; Harris, 1980). For example, many staff developers try to change teachers' beliefs about certain aspects of teaching or the desirability of a particular curriculum or instructional innovation. They presume that such a change in teachers' beliefs and attitudes will lead to specific changes in their classroom behaviors and practices which, in turn, will result in improved student learning.

This perspective on teacher change evolved largely from a model developed by early change theorists such as Lewin (1935), who derived many of his ideas about affecting change from psychotherapeutic models. But current research on teacher change indicates that the assumptions of this model may be inaccurate, at least under the special conditions of staff development for experienced teachers. An alternative model that reexamines the process of teacher change under these special conditions is neces-

sary, therefore, to guide the development of more effective staff development programs.

An Alternative Model

As mentioned earlier, the three major outcomes of staff development are change in the classroom practices of teachers, change in their beliefs and attitudes, and change in the learning outcomes of students. Of particular importance to the change process and to efforts to facilitate change, however, is the order of occurrence of these outcomes. In what temporal sequence do these outcomes most frequently occur?

The relationship among these outcomes is detailed and very complex. In addition, the numerous factors that operate to influence each tend to snarl the change process (Fullan, 1982). Still, staff development is a purposeful endeavor. It is a deliberate activity generally undertaken with specific purposes or goals in mind. The changes a staff developer wishes to bring about can usually be well-defined (Griffin, 1983). Thus, while the relationship among these outcomes is undoubtedly reciprocal to some degree, efforts to facilitate change *must* consider the order of outcomes most likely to result in desired change and the endurance of that change.

Staff development programs based on the assumption that change in teachers' beliefs and attitudes comes first typically emphasize the importance of gaining some sense of commitment from teachers initially. That is, activities are planned specifically to alter the beliefs and attitudes of teachers prior to the implementation of a new program or innovation. Often this is done by involving teachers in planning sessions or by surveying teachers to ensure that the program is aligned with their stated needs (Joyce, McNair, Diaz, & McKibbin, 1976).

Certainly teachers should have input in the planning and development of new programs. Their experience and expertise are a valuable resource that should not be ignored. But teacher participation in program planning is not always possible, particularly on a large scale (Dawson, 1981; Gersten & Guskey,

1985; Hood & Blackwell, 1980). Furthermore, although these activities may make certain programs or innovations a bit more palatable to some teachers, they seldom result in significant attitude change or strong commitment from the majority of teachers (Jones & Hayes, 1980).

An alternative perspective on the teacher change process is illustrated in Figure 1. The model in this figure suggests a different temporal sequence among the three major outcomes of staff development. According to the model, significant change in teachers' beliefs and attitudes is likely to take place only *after* changes in student learning outcomes are evidenced.

The changes in student learning result, of course, from specific changes teachers have made in their classroom practices, for example, a new instructional approach, the use of new materials or curricula, or simply some modification in teaching procedures or classroom format. Whatever the case, the model posits that significant change in the beliefs and attitudes of teachers is contingent on their gaining evidence of change in the learning outcomes of their students.

Note that this model is not necessarily novel and does not explain or account for *all* of the variables that might be associated with the teacher change process. Its simplicity is not meant to impugn the complexity of the issues involved or the inherent interrelationships among components. Rather, the model is offered primarily as an ordered framework by which to better understand trends that appear to typify the dynamics of the teacher change process.

The perspective on teacher change presented in this model is predicated on the idea that change is a learning process for teachers that is developmental and primarily experientially based. The instructional practices most veteran teachers employ are determined and fashioned to a large extent by their experiences in the classroom (Lortie, 1975).

Practices that are found to work, that is, those that a teacher finds useful in helping students attain desired learning outcomes, are re-

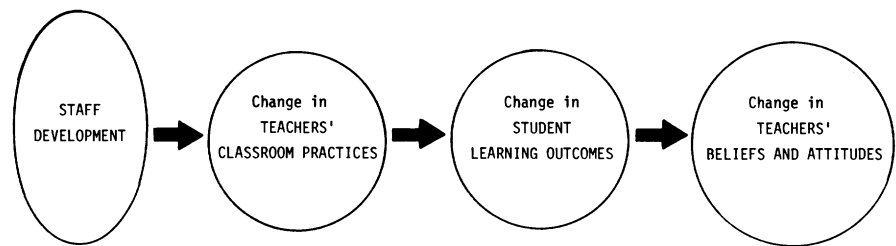


FIGURE 1. A Model of the Process of Teacher Change.

tained; those that do not work are abandoned. Hence, a key factor in the endurance of any change in instructional practices is demonstrable results in terms of the learning success of a teacher's students. Activities that are successful tend to be repeated while those that are not successful, or for which there is no tangible evidence of success, are generally avoided.

Beliefs and attitudes about teaching and instructional practices are similarly derived, largely from classroom experience. For example, a teacher who has been consistently unsuccessful at helping students from educationally disadvantaged backgrounds attain a high standard of learning is much more likely to believe they are incapable of academic excellence than a teacher who has experienced success in teaching these students. However, if the first teacher tried a new instructional strategy that successfully helped such students learn, that teacher's belief likely would change. The point is that evidence of improvement (positive change) in the learning outcomes of students generally precedes and may be a prerequisite to significant change in the beliefs and attitudes of most teachers.

Note that learning outcomes are broadly construed in this model to include not only cognitive and achievement indexes, but also the wide range of student affective characteristics. They can include students' scores on teacher-made quizzes and exams, as well as results from standardized achievement tests. But they can also include students' attendance, their involvement in class sessions, their motivation for learning, and their attitudes toward school, the class, and themselves. In other words,

learning outcomes include whatever evidence a teacher uses to judge the effectiveness of his or her teaching.

According to the model, when teachers see that a new program or innovation enhances the learning outcomes of students in their classes; when, for example, they see their students attaining higher levels of achievement, becoming more involved in instruction, or expressing greater confidence in themselves or their ability to learn, then, and perhaps only then, is significant change in their beliefs and attitudes likely to occur.

Support for the Model

Evidence supporting this model of teacher change comes from several different areas. One is ethnographic observations made on the process of teacher change. For example, in summarizing his studies of teachers and his own classroom experiences, Bolster (1983) emphasizes that ideas and principles about teaching are believed to be true by teachers only "when they give rise to actions that 'work' " (p. 298). He argues strongly that what teachers believe to be true is that which they have seen work in their own classrooms with their students. Therefore, according to Bolster, efforts to improve education must begin by recognizing that teachers' knowledge of teaching is validated very pragmatically, and that without verification from the classroom, attitude change among teachers with regard to any new program or innovation is very unlikely.

The Study of Dissemination Efforts Supporting School Improvements, by Crandall et al. (1982) offers additional support. This study examined efforts to implement 61 innovative practices in schools and classrooms in 146 dis-

tricts nationwide. Of particular interest to Crandall and his associates was the development of teachers' commitment to the new practices. In several instances they found project managers had tried to stimulate teachers' commitment to the new practices by involving them in problem-solving and decision-making prior to implementation. But in most cases, this was discovered to have deleterious effects. The new practices typically lost their effectiveness because they were altered by teachers beyond recognition.

In successful improvement efforts, on the other hand, teacher commitment was found to develop primarily *after* implementation took place. That is, teachers became committed to the new practices only after they had actively engaged in using them in their classrooms (Crandall, 1983). Again, this supports the idea that change in teachers' attitudes takes place primarily after some change in student learning has been evidenced.

Another example is Huberman's (1981) case study of one school district's efforts to implement the Exemplary Center for Reading Instruction (ECRI) program. ECRI is a structured reading program available through the National Diffusion Network. According to Huberman, the first 6 months of program implementation were characterized by high anxiety and confusion among most teachers. Then came a period in which anxiety was reduced but teachers continued to have problems relating specific teaching behaviors to the underlying rationale of the new program.

After 6 more months, the majority of teachers had cognitively mastered the individual pieces of ECRI, but still had "little sense of integration of separate parts or, more globally, why certain skills or exercises are related to specific outcomes. Concern for understanding the structure and rationale of the program grew as behavioral mastery over its parts was achieved" (Huberman, 1981, p. 91). Thus, as Fullan (1985) notes in his summary of this study, changes in attitudes, beliefs, and understanding generally *followed*, rather than preceded, changes in behavior.

Still other support for the model comes from research focusing directly on the process of teacher change. In several recent investigations I have sought to determine the separate effects of inservice training, the use of new instructional procedures, and evidence of improved student learning on several measures of teachers' beliefs and attitudes (Guskey, 1979, 1982, 1984). The most recent study involved 117 teachers from two metropolitan school districts, all of whom volunteered to participate in a staff development training program on mastery learning (Bloom, 1968, 1971). Because of budget constraints, participation in the training program was limited to only about half the number of teachers who volunteered. Hence, those who could not be included served as the control group for the study.

Of the 52 teachers who were trained in the use of mastery learning, 34 used the procedures in their classes during the first school semester following the training and gained evidence of improved learning among their students. These teachers found that under mastery learning their students attained higher scores on course examinations and earned higher course grades than students in their other class sections where mastery learning procedures were not employed. Ten teachers used the procedures but found no difference in learning outcomes among the students in their class sections, and eight of the teachers trained never attempted to use mastery learning procedures in their classes.

When measures of change in different beliefs and attitudes were compared among these various groups of teachers using pretest and posttest data, an interesting pattern emerged. Teachers who used the mastery learning procedures and gained evidence of improvement in the learning outcomes of their students expressed more positive attitudes toward teaching and greater personal responsibility for their students' learning—similar to a sense of self-efficacy. In other words, these teachers came to like teaching more and felt that they had a stronger influence on the learning of their students. This was

a particularly important finding since many previous studies have shown that experienced teachers generally do not view themselves as causal agents of the performance of their students (Ashton, Webb, & Doda, 1983; Cohen, 1972; Johnson, Baldwin, & Wiley, 1969; Smith & Goeffrey, 1968).

Similar changes were not experienced, however, by teachers who did not use the mastery learning procedures, or by those who did use the procedures but saw no evidence of improvement among their students. Only teachers who used the new procedures *and* gained evidence of positive change in their students' learning expressed these changes in their beliefs and attitudes. In the absence of such evidence, no significant change in teachers' beliefs or attitudes was found to occur.

Admittedly, generalization of these results is limited because all of the teachers were volunteers, and the number of teachers in two of the subgroups was relatively small. But at the same time, the consistency of these results with those of the studies mentioned previously makes a relatively strong case for the proposed model of teacher change.

A Similar Model

There is a striking similarity between the sequence of change events suggested by this model and a change model proposed nearly 100 years ago to describe the temporal relationship between emotion and behavioral response. In the late 1800s, the psychologist William James (1890) theorized that the important factor in an emotion is feedback from the bodily changes that occur in response to a particular situation. His theory seemed to conflict with commonly held notions about emotion and human behavior. Simply stated, James' theory suggested that we see a bear and run, therefore we are afraid. Or, if we slip while descending a staircase, we grab for the railing first, and then sense the fear of our near fall. This theory was also proposed by the Danish physiologist Carl Lange and is generally known as the James-Lange theory.

The model of teacher change outlined here might also seem to conflict with commonly held notions about the nature of educational change. The model implies that change in teachers' beliefs and attitudes is primarily a result, rather than a cause, of change in the learning outcomes of students. In the absence of evidence of positive change in students' learning, the model suggests that significant change in the beliefs and attitudes of teachers is very unlikely.

Implications for Staff Development

Assuming that this model of teacher change is accurate, what are its implications for staff development? Stemming from the model are the following three guiding principles. Consideration of these principles is believed to be essential in planning effective staff development programs that result in significant and sustained educational improvements.

1. *Recognize that change is a gradual and difficult process for teachers.* Learning to be proficient at something new and finding meaning in a new way of doing things requires both time and effort. Any change that holds great promise for increasing teachers' competence and enhancing student learning is likely to require extra work, especially when first beginning. The requirements of extra energy and time can significantly add to teachers' workload, even when release time is provided.

Furthermore, change also brings a certain amount of anxiety and can be very threatening. Like practitioners in many other fields, teachers are reluctant to adopt new practices or procedures unless they feel sure they can make them work (Lortie, 1975). To change or to try something new means to risk failure. Not only would this be highly embarrassing, but it also runs counter to most teachers' strong commitment to student learning. To change means to chance the possibility that students might learn less well than they do under current practices. Therefore, even when presented with evidence from the most carefully designed experimental studies, teachers do not easily

alter or discard the practices they have developed and refined in the demanding environment of their own classrooms (Bolster, 1983).

In addition, though teachers are strongly committed to student learning and want to do all they can to improve learning outcomes, they generally oppose radical alterations to their present instructional procedures (Mann, 1978). The likelihood of their implementing a new program or innovation depends largely on their judgment of the magnitude of change required for implementation.

Programs or innovations that are dramatically different from teachers' current practices or that require teachers to make major revisions in the way they presently teach are unlikely to be implemented well, if at all (Doyle & Ponder, 1977). Therefore, if a staff development effort is to be successful, it must clearly illustrate how the new practices can be implemented incrementally, without too much disruption or extra work (Sparks, 1983). If a new program does require that major changes be made, it is best to ease into its use rather than expect comprehensive implementation at once (Fullan, 1985).

It is also important to recognize that no new program or innovation will be implemented uniformly. Teaching and learning are influenced by a multitude of situational and contextual variables. Hence, an appropriate balance must be struck between program fidelity and mutual adaptation considerations (Berman, 1980; Fullan, 1981; Griffin & Barnes, 1984). Close collaboration between program developers/researchers and teachers can greatly facilitate this process and can be accomplished in a variety of ways (Ward & Tikinoff, 1982).

Staff development efforts that successfully encourage and sustain change have been found to share several other common characteristics as well. First, if a new program or innovation is involved, it must be presented in a clear and explicit way. It should be explained in concrete, rather than abstract or theoretical terms, and should be aimed at specific (rather than global) teaching skills (Mazzarella, 1980).

Second, the personal concerns of teachers must be addressed in a direct and sensitive manner. If teachers are to focus attention on how the new program or innovation might benefit their students, they must first resolve their concerns about how the new practices will affect them personally (Hall & Loucks, 1978).

Third, the purveyor of the new practices must be seen as a credible person by those responsible for implementation. This person must be articulate and charismatic, and must emphasize the practicality of the new practices. Whether it is someone from within the system or an external consultant, it is essential that this person stress how these new practices can be practically and efficiently used (Crandall, 1983).

Although these characteristics greatly facilitate the implementation process, it is important to remember that very few teachers will leave a staff development effort thoroughly convinced that a new program or innovation will work for them. But it is hoped that many will be intrigued enough to try the new practices, at least on a trial basis, and will leave the staff development program with a 'Well, let's see' attitude.

2. *Ensure that teachers receive regular feedback on student learning progress.* If the use of new practices is to be sustained and changes are to endure, teachers must receive regular feedback on the effects of these changes on student learning. It is a human characteristic that successful actions are reinforced while those that are unsuccessful tend to be diminished. Practices that are new and unfamiliar will be accepted and retained when teachers perceive them as having increased their success with students. After all, success and progress are the very stuff that makes teaching worthwhile. However, the new practices will likely be abandoned in the absence of any evidence of their positive effects. Therefore, plans for implementing a new program or innovation should include specific procedures by which teachers can receive evidence of the effectiveness of their efforts.

In programs involving the imple-

mentation of mastery learning, for example, teachers receive this type of feedback through the regular administration of *formative tests* (Bloom, Madaus, & Hastings, 1981). Formative tests are used in mastery learning primarily to give students detailed information on their learning progress. Paired with these tests are corrective activities designed to help students remedy their learning errors. But in addition to the feedback formative tests offer students, they offer teachers specific feedback on the effectiveness of their use of the mastery learning process.

These regular checks on student learning provide teachers with direct evidence of the results of their efforts. They illustrate clearly and precisely the improvements made in students' achievement. Formative tests can also be used to guide instructional revisions, when necessary, so that still other improvements can be attained (Guskey, 1985).

Students' scores on quizzes and tests are not the only type of feedback indicative of successful learning outcomes. Stallings (1980) found that providing teachers with regular and precise feedback on student involvement during class sessions can be very powerful in facilitating their use of new instructional practices. Evidence on students' feelings of confidence or self-worth can also serve this purpose (Dolan, 1980). Whatever the student learning outcome employed, it is critically important to plan some procedure by which teachers can receive regular feedback on that outcome to assess the effects of their efforts. When teachers gain this evidence and, as a result, see that a new program or innovation does work well in their classrooms, change in their beliefs and attitudes can and will follow.

3. *Provide continued support and follow-up after the initial training.* If change in teachers' beliefs and attitudes occurred primarily before implementation of a new program or innovation, the quality of the initial training would be of utmost importance. But since, as the model suggests, such change occurs mainly after implementation takes place and evidence of improved student

learning is gained, it is continued support *following* the initial training that is most crucial.

Few teachers can move from a staff development program directly into the classroom and begin implementing a new program or innovation with success. In most cases, some time and experimentation are necessary for teachers to fit the new practices to their unique classroom conditions (Berman & McLaughlin, 1976; Joyce & Showers, 1980, 1982; Smith & Keith, 1971). Support during this period of trial and experimentation are critically important. Teachers need ongoing guidance and direction to make whatever adaptations may be necessary and at the same time maintain program fidelity. Furthermore, they need to know that assistance is readily available if problems develop or if unexpected difficulties are encountered. No matter how much advance staff development occurs, it is when teachers actually try to implement a new approach that they have the most specific concerns and doubts (Fullan, 1982). Support is also necessary so that teachers can tolerate the anxiety of occasional failures and persist in their implementation efforts (Cogan, 1975).

If a new program or innovation is to be implemented well, it must become a natural part of teachers' repertoire of teaching skills. Especially for program continuation and expansion, teachers must come to use the new practices almost out of habit. If this is to occur, continued support and encouragement are essential.

This crucial support for teachers can be offered in a variety of ways. Joyce and Showers (1982) suggest that it take the form of coaching—providing teachers with technical feedback, guiding them in adapting the new practices to the needs of their students, and helping them to analyze the effects on students. In other words, coaching is personal, hands-on, in-classroom assistance. Joyce and Showers further suggest that this assistance can be provided by administrators, curriculum supervisors, college professors, or fellow teachers.

Simply providing teachers with opportunities to interact and share

ideas can also be a very valuable mechanism for support. Little (1981), for example, found that staff development programs concerning new programs and innovations are most successful when teachers can regularly discuss their experiences in an atmosphere of collegiality and experimentation. For most teachers, having a chance to share perspectives and seek solutions to common problems is extremely beneficial. Similarly, Holly (1982) found that what teachers like best about inservice workshops generally is the opportunity to share ideas with other teachers.

Follow-up procedures incorporating coaching or time for collegial sharing may seem simplistic, particularly in light of the complex nature of the change process. Still, as the model suggests, careful attention to these types of support appears crucial in facilitating change.

Future Research

The model of teacher change outlined here presents a variety of opportunities for future research. As have others in the past (e.g., Berman & McLaughlin, 1978; Fullan, 1982; Hall & Loucks, 1977), it emphasizes that change is a process rather than an event. However, it is hoped that it will stimulate renewed interest in the various components of that process, the nature of the relationship between components, and the transition from one component to the next.

For example, we need to find more creative ways to help teachers translate new knowledge into practice, keeping in mind the problems related to "working on" rather than "working with" teachers (Ward & Tikinoff, 1976). Better and more efficient methods of providing teachers with regular feedback on the learning progress of their students also should be identified. The specific teacher beliefs and attitudes most crucial to professional growth and development must be explored, and better ways of measuring these variables need to be found. Studies on these issues offer exciting possibilities. In addition, the findings are likely to have implications for staff development efforts at any level of education.

Note that this model offers a very

optimistic perspective on the potential of staff development. The model illustrates that although the process of teacher change is complex, it is also somewhat orderly. Furthermore, it suggests that careful attention to that order is likely to facilitate change and the endurance of change. Hence, staff development programs could potentially be far more effective and powerful than they generally have been in the past. It is hoped that the model outlined in this paper offers some direction for improving staff development programs.

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